

REMARKS

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, has continued to reject all claims 1-20. In response, claims 1-6 and 11-16 have been amended to further define features of those claimed embodiments. These amendments render the rejections moot. Notwithstanding, Applicant submits the following additional distinguishing remarks. Applicant submits that no new matter is added by these amendments.

Rejections under 35 U.S.C 103(a)

Claims 1 and 11 stand rejected under 35 U.S.C 103(a) as allegedly being obvious over Dorrel et al. (US 2003/0123701) hereinafter Dorrell and further in view of Acharya et al. (US 6,654,501) hereinafter Acharya.

In regard to claims 1 and 11, Dorrel and Acharya do not teach or suggest what the all claimed features, and indeed do not even teach or suggest what the Office Action relies on them as supposedly teaching. In this regard, Dorrel and Acharya fail to disclose, suggest, or teach, *inter alia*, the following feature recited by above claims of the present application:

“dividing an original image into two image parts according to a compression technique, wherein one of the image parts is the base image data and the other image part is the auxiliary image data, and the base image data and the auxiliary image data respectively comprise a part of image contents comprising pixel values of the original image”; and
“composing the compressed base image data and the auxiliary image data cipher into a protected image corresponding to the original image, such that plaintext for the first image part and cipher for the second image part are in the protected image”.

The Office Action interprets the auxiliary image data to be the metadata of Dorrell and the watermark of Acharya. ***As noted in previous responses, “metadata” in the Dorrell reference does not properly equate to the auxiliary image data of the application and claimed embodiments, and the “watermark” in the Acharya reference does not properly equate to the auxiliary image data of the application and claimed embodiments.***

In the application, an original image is divided into two image parts, called base image data and auxiliary image data. ***Each image part includes a part of the pixel values (image content) of the original image.*** In the Dorrell reference, however, the metadata is acquisition metadata including intellectual property rights information (e.g. copyright labeling), which is used to identify the party or parties having intellectual property rights in the image. The acquisition metadata can also include a date, time, flash status and/or focus setting. It is clearly that ***the auxiliary image data in the application is not equated to the metadata in the Dorrell reference since the metadata in the Dorrell reference does not have a part of pixel values of the original image.***

In the Acharya reference, the watermark is an image block including pixel values. However, the watermark is not a part of the image to be added with the watermark. As described, in the application, an original image is divided into two image parts, and ***the image part (auxiliary image data) includes a part of the pixel values of the original image. The auxiliary image data in the application is not equated to the watermark in the Acharya reference since the watermark in the Acharya reference is not divided from the original image to be added with the watermark, and does not have a part of pixel values of the original image.***

Additionally, in the last arguments, *Applicant argued that nowhere in the related references disclose an image is divided into base image data and auxiliary image data according to a compression technique. The Examiner, however, does not provide any response to these arguments.* In the application, *the original image is divided based on the compression technique used for compressing the first image part (the base image data). The applicant respectfully requests the Examiner to provide appropriate responses for the arguments.*

Further, in the application, an image is divided into two parts according to a compression technique. One or both of the image parts are compressed using the compression technique. *On image part is then encrypted to a cipher, and the another is not encrypted, such that the generated protected image comprises plaintext for the first image part and cipher for the second image part. No where in the Dorrell or Acharya reference does it disclose the claimed features of plaintext and cipher to be simultaneously in an image.*

In the application, the objective is to show a part of the image to users. For example, after the compression and composition, users can view an image without a protected portion after ROI compression, users can view a thumbnail of an image after resolution compression, and users can view a blurred image after quality compression. *The objective of the Dorrell or Acharya reference is to add information such as copyright notices to an image. The objective of the application is very different from that of the Dorrell and the Acharya references.*

Since Dorrell and Acharya fail to teach the claimed features above of the invention, the applicant believes that claims 1 and 11 are patentable over the cited reference. Insofar as claims 2-10 directly or indirectly depend from claim 1, and claims 12-20 directly or indirectly depend from claim 11 are similarly believed to be patentable.

With specific reference to the independent claims, claims 1 and 11, as amended herein, recite:

1. An image protection system, comprising:
a first image device, comprising:
a compression unit to ***divide an original image into two image parts according to a compression technique***, wherein a first image part of the image parts is the base image data and a second image part of the image parts is the auxiliary image data, and ***the base image data and the auxiliary image data respectively comprise a part of image contents comprising pixel values of the original image***, and compress the base image data to compressed base image data according to the compression technique;
an encryption unit coupled to the compression unit to receive and encrypt the auxiliary image data to an auxiliary image data cipher; and
an image composing unit coupled to the compression unit and the encryption unit to receive and compose the compressed base image data and the auxiliary image data cipher into a protected image corresponding to the original image, ***such that plaintext for the first image part and cipher for the second image part are in the protected image***.

11. An image protection method, comprising the steps of:
dividing an original image into two image parts according to a compression technique, wherein one of the image parts is the base image data and the other image part is the auxiliary image data, and ***the base image data and the auxiliary image data respectively comprise a part of image contents comprising pixel values of the original image***;
compressing the base image data to compressed base image data according to the compression technique;
encrypting the auxiliary image data to an auxiliary image data cipher; and
composing the compressed base image data and the auxiliary image data cipher into a protected image corresponding to the original image, ***such that plaintext for the first image part and cipher for the second image part are in the protected image***.

(*Emphasis added*). Claims 1 and 11 patently define over the cited art for at least the reasons that the cited art fails to disclose the features emphasized above.

As a separate and independent basis for the patentability of all claims, Applicant submits that the combination of Dorrell and Archarya is improper and therefore does not render the claims obvious. In this regard, the Office Action combined Archarya with Dorrell to reject the claims on the solely expressed basis that "it would have been obvious ... since Archarya states in column 2 lines 42-48 that this technique is unaffected by noise reduction techniques. Therefore the watermarked image would withstand more manipulation." (see e.g., Office Action, p. 4)

This rationale is both incomplete and improper in view of the established standards for rejections under 35 U.S.C. § 103.

In this regard, the MPEP section 2141 states:

The Supreme Court in *KSR* reaffirmed the familiar framework for determining obviousness as set forth in *Graham v. John Deere Co.* (383 U.S. 1, 148 USPQ 459 (1966))... As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows:

- (A) Ascertaining the differences between the claimed invention and the prior art; and
- (B) Ascertaining the differences between the claimed invention and the prior art; and
- (C) Resolving the level of ordinary skill in the pertinent art.

In addition:

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;

(B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;

(C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention and

(D) Reasonable expectation of success is the standard with which obviousness is determined.

Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

As reflected above, the foregoing approach to obviousness determinations was recently confirmed by the United States Supreme Court decision in *KSR INTERNATIONAL CO. V. TELEFLEX INC. ET AL.* 550 U.S. 1, 82 USPQ2d 1385, 1395-97 (2007), where the Court stated:

In *Graham v. John Deere Co. of Kansas City*, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in *Hotchkiss v. Greenwood*, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15–17. The analysis is objective:

“Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” *Id.*, at 17–18.

Indeed, as now expressly embodied in MPEP 2143, “[t]he **key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious**. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit.” (*Emphasis added, MPEP 2143*). “Objective evidence relevant to the issue of obviousness **must** be evaluated by Office personnel.” (MPEP 2141). “The key to supporting any

rejection under 35 U.S.C. 103 is the **clear articulation of the reason(s)** why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 **should be made explicit**. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (MPEP 2141).

Simply stated, the Office Action has failed to at least (1) ascertain the differences between and prior art and the claims in issue; and (2) resolve the level of ordinary skill in the art. Furthermore, the alleged rationale for combining the references is merely an improper conclusory statement that embodies clear and improper hindsight rationale. For at least these additional reasons, Applicant submits that the rejections of all claims are improper and should be withdrawn.

In view of the foregoing remarks, the applicants respectfully request the Examiner’s reconsideration of the application and the timely allowance of claims.

CONCLUSION

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

A credit card authorization is provided to cover the fee associated with the accompanying RCE application. No fee is believed to be due in connection with this

amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

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